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| INTUIT, INC. c/o PARK, VAUGHAN & FLEMING LLP 2820 FIFTH STREET DAVIS, CA 95618-7759 | | | EXAMINER RUTTEN, JAMES D | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/817,386

Applicant(s)

BELBUTE, JOHN L.

Examiner

J. Derek Rutten

Art Unit

2192

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,7-13,16-22 and 25-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,7-13,16-22 and 25-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. This action is in response to Applicant's submission filed 9/27/07, responding to the 6/1/07 Office action which detailed the rejection of claims 1-27. Claims 1, 7, 8, 10-12, 17, 19, and 26 have been amended, claims 5, 6, 14, 15, 23, and 24 have been canceled. Claims 1-4, 7-13, 16-22, and 25-27 remain pending in the application and have been fully considered by the examiner.

Response to Amendment/Arguments

2. Applicant's amendment to the specification fails to include generic language with the trademark "JAVA." As such, the objection to the specification is maintained.
3. Applicant's amendments to claims 7, 8, 17, and 26 overcome the objection to those claims. Likewise, the objection is withdrawn.
4. Applicant's amendments to claims 11 and 12 have overcome the rejection to those claims under 35 U.S.C. 112 second paragraph. The cancellation of claim 24 obviates any rejection of it. Likewise, the rejections are withdrawn.
5. Applicant has amended independent claims 1, 10, and 19 to include the limitation "by parsing and evaluating names and parameters of one or more methods of a test case from the plurality of test cases." Applicant essentially argues that the Benedusi reference discloses "identifying the functionalities and logical coverage of a test case," i.e. a "low-level analysis of a test case," in contrast to the newly amended claims which provide a "high-level analysis." This argument is not persuasive. Benedusi is not simply interested in "identifying the functionalities and logical coverage of a test case." Rather, Benedusi uses that identified information in order to

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find a test case capable of executing a changed path. For instance, page 356, left column line 35 – right column line 6, discusses a “re-testing table” that is used for listing test cases that cover new paths. Constructing and reading such a re-testing table necessarily involves parsing and evaluating, since without parsing, the software would be unable to distinguish one symbol from another. Likewise, selection of test cases necessarily requires evaluation to determine if the test cases involves any new of changed paths. Thus, Benedusi appears to disclose such parsing and evaluation. Further limitations are addressed in the rejection of the claims below.

Specification

6. The use of the trademark “Java” has been noted in this application (e.g. paragraph [0023]). It should be capitalized wherever it appears and be **accompanied by the generic terminology (e.g. “Java programming language”).**

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claims 1-4, 7-13, 16-22, and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over prior art of record “Post-Maintenance Testing Based on Path Change Analysis” by Benedusi et al. (hereinafter “Benedusi”) in view of prior art of record U.S. Patent No. 6,662,359 to Berry et al. (hereinafter “Berry”).

In regard to claim 1, Benedusi discloses:

A method for testing changes in a software program using a plurality of test cases, wherein the software program comprises a first plurality of execution paths, See page 354, column 1, lines 13-24, e.g. “strategies.” the method comprising:

identifying one or more changed paths in the first plurality of execution paths;

See page 354, column 1, lines 16-18, e.g. “identify how many and which paths have been added, ...deleted and ... modified.”

from the plurality of test cases, identifying one or more test cases that are capable of executing the one or more changed paths by parsing and evaluating names ...of one or more methods of a test case from the plurality of test cases; See page 354, column 1, lines 18-21, e.g. “re-running the test cases referring to (i) modified and new paths...”

Also see page 356 column 1 lines 11-16: [the testing table shows] “the ‘meaning’ of the test case, which is expressed by references to the functionalities exercised by it (Fa, Fb, Fc, ..Fn)...” Further, Benedusi discloses a “re-testing table” for executing test cases that exercise functions corresponding to the changed path. See page 355, second column lines 59-60: “E) execution of the tests laid down in the re-testing table;” also page 356 left column line 35 - right column line 3: “C) the re-testing table is built up by **selecting**

only those rows in the initial test table that correspond to existing test cases to be re-executed; further rows are added for new test cases that are needed to cover any new paths.” Such selection necessarily requires parsing and evaluation of names of functions, i.e. methods, since without it, the test software would be unable to determine symbols or decide if a row should be added to the re-testing table. Benedusi does not expressly disclose: *parameters*. However, Berry teaches that a unique signature, which includes method parameters, can identify a method. See column 6 lines 1-16. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Berry’s teaching of a unique method signature (including parameters) with Benedusi’s functional identification (see page 356 column 1 lines 11-16) in order to uniquely identify a method as suggested by Berry.

and executing the one or more of the identified test cases to test the changed path.

See page 355, column 2, lines 59-60, e.g. “execution of the tests.”

In regard to claim 2, the above rejection of claim 1 is incorporated. Benedusi further discloses: *wherein the software program comprises one or more modules, and identifying one or more test cases comprises identifying a changed module and determining whether the changed module causes changes in the execution paths*. See page 355 column 1 lines 30-44; also page 356 column 1 line 35 – column 2 line 6.

In regard to claim 3, the above rejection of claim 1 is incorporated. Benedusi further discloses: *wherein identifying one or more test cases comprises identifying a*

second plurality of execution paths in the software program and determining the difference between the first and second pluralities of execution paths. See page 355, column 1 lines 46-51.

In regard to claim 4, the above rejection of claim 3 is incorporated. Benedusi further discloses: *wherein the difference comprises at least one of a new path and a changed path. See page 355 column 1 lines 34-38 and 40-44.*

In regard to claim 7, the above rejection of claim 1 is incorporated. Benedusi further discloses: *wherein identifying one or more test cases comprises determining whether a test case intersect one or more changed paths. See page 354, column 1 lines 18-24.*

In regard to claim 8, the above rejection of claim 7 is incorporated. Benedusi further discloses: *wherein determining whether a test case intersect one or more changed execution paths comprises identifying a module of the software program included in both the test case and a changed execution path. See page 356 column 2 lines 8-12.*

In regard to claim 9, the above rejection of claim 8 is incorporated. Benedusi further discloses: *wherein each module is represented by a node number, See Fig. 2.*

and each execution path and test case is represented by a string of node numbers, See page 359 line 6, also page 356, fig. 3a. All further limitations have been addressed in the above rejection of claim 8.

In regard to claim 10, Benedusi discloses:

A computer program product for testing a software program using a plurality of test cases, the computer program product comprising a computer usable medium having a computer readable program code embodied thereon, See page 352, column 2, Fig. 1 and line 30, e.g. "storage." All further limitations have been addressed in the above rejection of claim 1.

In regard to claim 11, the above rejection of claim 10 is incorporated. Benedusi further discloses: *wherein the software program comprises one or more modules, wherein identifying one or more [changed] paths comprises identifying the changed module and determining whether the changed module causes changes in the execution paths. See page 355 column 1 lines 30-44; also page 356 column 1 line 35 – column 2 line 6.*

In regard to claim 12, the above rejection of claim 10 is incorporated. Benedusi further discloses: *wherein identifying one or more [changed] paths comprises identifying a second plurality of execution paths in the software program upon changing of the code and determining the difference between the first and second pluralities of execution paths. See page 355, column 1 lines 46-51.*

In regard to claim 13, the above rejection of claim 12 is incorporated. All further limitations have been addressed in the above rejection of claim 4.

In regard to claims 14 and 16-18, the above rejection of claim 10 is incorporated. All further limitations have been addressed in the above rejection of claims 2-5.

In regard to claim 19, Benedusi discloses:

A system for testing changes in a software program See page 352, Fig. 1. All further limitations have been addressed in the above rejection of claim 1.

In regard to claim 20, the above rejection of claim 19 is incorporated. All further limitations have been addressed in the above rejection of claim 2.

In regard to claim 21, the above rejection of claim 19 is incorporated. All further limitations have been addressed in the above rejection of claims 3 and 12.

In regard to claim 22, the above rejection of claim 21 is incorporated. All further limitations have been addressed in the above rejection of claim 4.

In regard to claims 23 and 25-27, the above rejection of claim 19 is incorporated.

All further limitations have been addressed in the above rejection of claims 5 and 7-9, respectively.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Derek Rutten whose telephone number is (571)272-3703. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571)272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jdr



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SUPERVISORY PATENT EXAMINER